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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/231,066	01/14/1999	VILLE RUUTU	442-008422-U	3449

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CLARENCE A GREEN
PERMAN & GREEN
P O 425 POST ROAD
FAIRFIELD, CT 06430

EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT

PAPER NUMBER

2685

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/231,066

Applicant(s)
Ruutu

Examiner
Naghmeh Mehrpour

Art Unit
2685



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 12, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2 **Claims 1-8, 11-13, 15,** are rejected under 35 U.S.C. 102(b) as being anticipated by International Publication WO 96/35306.

Regarding **Claims 1, 7-8, 12-13,** the international publication teaches a method of determining the position of a mobile communications device within a cellular network (Page 2 lines 30-33), the method comprising the steps of: transmitting data to the mobile communication device from the cellular network, the data identifying to the mobile communication device a predetermined list of radio channels corresponding to respective radio transmitters of the cellular network (Page 9 lines 4-13), the predetermined list **have been determined beforehand** on the basis of the approximate position of the mobile communication device, **accordance with geometrical requirements for position determination** (Page 9 lines 14-23), and causing the mobile communication device to listen on the identified channels, or on other channels excluding the identified channels, and to determine from information transmitted over the listened to channels data values related to the relative geometry of the mobile communication device and the radio transmitters transmitting the listened to channels (Page 9 lines 9-12), and determining the position

Art Unit:

of the mobile communication device using the determined data values (Page 9 lines 13-30, Page 11 lines 25-30).

Regarding **Claims 2, 6**, the international publication teaches a method wherein the transmitters are provided by respective base transceiver stations and the data transmitted to the mobile device identifying the list of radio channels comprises a set of radio channel numbers known to the mobile device (Page 9, lines 13-30).

Regarding **Claim 3**, the international publication teaches a method wherein the data values are time relationship values to the transmission delay times between the mobile device and the radio transmitters transmitting the listened to channels (Page 9, lines 13-30, Page 11 lines 25-30).

Regarding **Claims 4-5**, the international publication teaches a method wherein the time relationship values are observed time differences (OTD) each being the difference between the transmission delay time between the mobile and one of the radio transmitters transmitting the listened to channels, and the transmission delay time between the mobile device and a radio transmitter of a base transceiver station currently serving the mobile device (Page 10 lines 11-33, Page 11 lines 9-32).

Regarding **Claim 11**, the international publication teaches a method further comprising the step of causing the mobile communication device to use pre-selected radio transmitters in the cellular network for position determination measurements (Page 9 lines 15-23).

Regarding **Claim 15**, the international publication a method further teaches the step of pre-storing the pre-determined list of radio channels by associating other radio transmitters based on position

Art Unit:

with a selected serving radio transmitter, wherein each radio transmitter in the network has an associated stored pre-determined list (page 10 lines 4-10).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 9-10, 14**, are rejected under 35 U.S.C. 103(a) as being unpatentable over international publication WO 96/35306 in view of Zadeh (US Patent Number 6,324,406 B1)

Regarding **Claim 9**, the international publication fails to teach a method further comprising the step of storing in a central element pre-determined list for each respective radio transmitter in the cellular network. However Zadeh teaches a method comprising the step of storing in a central element pre-determined list for each respective radio transmitter in the cellular network. Mobile position center has record of the location of all BTS's as shown on line 140 (See figure 1, col 4 lines 5-8). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of method of determining location of mobile Zadeh to method of determining location of mobile of the international publication, in order to provide better quality communication system due to reducing the chance of call being lost.

Regarding **Claim 10**, the international publication does not disclose that a method wherein the central element is a mobile positioning center. However Zadeh teaches a method of determining

Art Unit:

the location of mobile station wherein the central element is a mobile positioning center.

Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of method of determining location of mobile Zadeh to method determining location of mobile of the international publication, in order to reduce the chance of call being lost.

Regarding **Claim 14**, the international publication fails to teach a method wherein the pre-determined list of radio channels corresponding to radio transmitters is independent of a signal transmission strength between each radio transmitter and the mobile communication device.

However Zadeh teaches a method wherein the pre-determined list of radio channels corresponding to radio transmitters is independent of a signal transmission strength between each radio transmitter and the mobile communication device (col 4 lines 1-15). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide above teaching of method of determining location of mobile Zadeh to method determining location of mobile of the international publication, in order to provide more reliable wireless communication system by using the location of the mobile unit instead of the signal strength of mobile unit, since signal strengths changes due to different factors such as reflection and shadowing.

Response to Arguments

5. Applicant's arguments with respect to claim have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: .

In response to the applicant's argument that " *In 96/35306 there is no suggestion or teaching of pre-determined lists*" for position determination.

The examiner stated that each base station (A) holds information relating to itself and six nearby base stations B, C, D, E, F, G. From the six base stations four of them are being used, the four generally being those providing the strongest signal at the mobile unit M. The base station transmits the data to the mobile unit M on the its BCCH (Broadcast Control Channel). This data includes the radio frequency of each base station's BCCH, and allow mobile unit to periodically sample the signal quality of each BCCH, and allow handovers to take place based on the results of the sampling (Page 9 lines 15-20). The data that includes the radio frequency of each base station's is the predetermined list for position determination.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit:

7. Any responses to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308--6296, (for formal communications intended for entry)

Or:

(703) 308-6306, (for informal or draft communications, please label

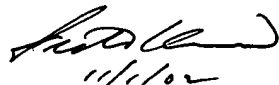
“PROPOSED” or “DRAFT”)

Hand-delivered responses should be brought to Crystal Park II. 2121 Crystal Drive, Arlington. Va., sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Melody Mehrpour whose telephone number is (703) 308-7159. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of bi-week) from 6:30 a.m. to 5:00 p.m.

NM

Oct 29, 2002


11/1/02
LESTER G. KINCAID
PRIMARY EXAMINER